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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,192	04/18/2001	Tsung-Chih Chen	BHT-3106-136	6518
27615	7590	05/24/2004	EXAMINER	
CHARLES R. SUTTON 14507 SYLVAN ST., STE. 208 VAN NUYS, CA 91411			JIANG, CHEN WEN	
			ART UNIT	PAPER NUMBER

3744

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/836,192

Applicant(s)

CHEN

Examiner

Chen-Wen Jiang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attey et al. (U.S. Patent Number 5,544,487) in view of Yokotani et al. (U.S. Patent Number 5,168,339).

Applicant's remark has been carefully considered. First, in the paragraph 2 of the Field of Invention of Attey describes the deficiencies of prior art and are not the teachings of Attey. Second, it is well known in the refrigeration system that heat pump includes air conditioning system. Attey et al. disclose a thermoelectric heat pump with hot and cold liquid heat exchange circuits. A thermoelectric system 10 comprises a thermoelectric module 12 having first and second opposed faces. When an electric current is applied to the module, heat is pumped from one side to the other side. A respective manifold 14 defining a volume is attached to each face of the thermoelectric module 12. The peripheral wall 24 contains a number of bolt holes 27. The bolt holes 27 allow very small gauge bolts and nuts to hold one manifold to the other manifold 14 on the other side of the thermoelectric module 12. The peripheral walls 24 of the manifolds 14 may be sealed to the outer perimeter of the module 12 faces to prevent fluid leakage using known technique such as gasket, O-rings or silica/rubber cement. Extending from each inlet 16 there is a respective conduit 40 and extending from each outlet 18 there is a respective conduit 42. One or other of the conduits 40,42 has mounted thereto a pump 44. The thermoelectric

module 12 may be mounted at a mid-point in a refrigerator wall with the cooling side manifold 14, pump 44, conduits 40,42 and heat exchanger 46 inside of this point and the heating side manifold 14, pump 44, conduits 40,42 and heat exchanger 46 outside of this point. However, Attey et al. do not disclose the detail construction of the thermoelectric module 12. Yokotani et al. teach SbBi crystal and insulation resin used in the thermoelectric module in the same field of endeavor for the purpose of constructing the thermoelectric module. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Attey et al. with a thermoelectric module having SbBi crystal and insulation resin in view of Yokotani et al. so as to construct the thermoelectric heat pump device.

In regard to claim 2, this is the principle of the thermoelectric device.

In regard to claim 3, coil/heat sink heat exchanger is shown in Fig.2.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Attey et al. and Yokotani et al. as applied to claims 1-3 above, and further in view of Shikata et al. (U.S. Patent Number 6,213,198).

Attey et al. and Yokotani et al. disclose the invention substantially as claimed. However, Attey et al. and Yokotani et al. do not disclose an eccentric fan. Shikata et al. disclose using eccentric fan in the same field of endeavor for the purpose of deliver air-flow. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Attey et al. and Yokotani et al. with an eccentric fan in view of Shikata et al. to deliver air-flow.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (703) 308-0275. The examiner can normally be reached on Tuesday-Friday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on (703) 308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chen-Wen Jiang
Primary Examiner

A handwritten signature in black ink, consisting of a series of loops and a final horizontal stroke, positioned to the right of the name and title.